TRANSPORTATION MANAGEMENT

1. Introduction. This unit of instruction is designed to give you an appreciation for the American transportation network, its impact on the Department of Defense (DoD), and some of the critical operations performed by an installation or distribution center transportation office. Our transportation system is so efficient that most of us rarely think about it unless we are inconvenienced by a breakdown in some of its parts. Instead, we take transportation for granted, like the air we breathe. None of the services we consume would be available without the transportation of major items, tools, repair parts, and medical materiel. Transportation has historically played a critical role in our nation's heritage and development, and our future will continue to be dependent upon an efficient and integrated transportation network. Logisticians must consider the total capabilities and limitations of our transportation network when placing materiel requirements on the physical distribution system. The transportation network is not only a means of movement of people and materiel, but also it is the principal buffer in physical distribution that provides elasticity to the time required for delivery of materiel. This elasticity is a result of the customer assigning a required delivery date (RDD) to the requisition before submission into the wholesale system.

2. Objectives. After completing this lesson, you will be able to:

a. Identify the federal government transportation agencies and their primary responsibilities.

b. Explain the mission of the DoD transportation operating agencies and services they provide to DoD customers.

c. Describe the critical functions of the Distribution Center/ Installation Transportation Office (ITO).

d. Describe the modes of transportation, their advantages, and their disadvantages.

e. Identify the management reports used during shipment planning.

3. References.

a. DoD 4500.32-R, Military Standard Transportation and Movement Procedures (MILSTAMP).

b. DoD 4500.9-R, Part II, Defense Transportation Regulation (DTR).

4. The Regulation of Transportation.

a. The Act to Regulate Commerce. The Act to Regulate Commerce, now known as the Interstate Commerce Act, became effective on 5 April 1887. This statute has been amended many times; however, it was originally established because of monopolies in the railroad industry. It presently contains separate parts covering all types of public transportation except air. Of primary importance is this act was intended to provide "fair and impartial regulation of all modes" and was concerned with transportation meeting the needs of the national defense.

b. National Transportation Policy. The Preamble in Section I of the Act states the National transportation policy as follows:

> It is hereby declared to be the national transportation policy of the Congress to provide for fair and impartial regulation of all modes of transportation subject to the provisions of this act, so administered as to recognize and preserve the inherent advantages of each; to promote safe, adequate, economical, and efficient service and foster sound economic conditions in transportation and among the several carriers; to encourage the establishment and maintenance of reasonable charges for transportation services, without unjust discriminations, undue preferences or advantages, or unfair or destructive

competitive practices; to cooperate with the several States and the duly authorized officials thereof; and to encourage fair wages and equitable working conditions;-- all to the end of developing, coordinating, and preserving a national transportation system by water, highway, and rail, as well as other means, adequate to meet the needs of the commerce of the United States, of the Postal Service, and of the national defense. All provisions of this act shall be administered and enforced with a view to carrying out the above declaration of policy.

5. Regulatory Agencies.

a. The Interstate Commerce Commission (ICC). The ICC was the oldest of the independent agencies created by Congress. In 1995, it was replaced by **the Surface Transportation Board (STB)**. It is not part of any of the departments headed by a Cabinet officer, or any other officer of the executive, legislative, or judicial branches. It is an administrative agency and not a court. The STB combines legislative, judicial, and executive functions. It is responsible to each of the three branches of the Government. It is responsible to the legislative branch because at any time Congress can change the rules which the board must apply. Members of the judicial branch have the power to set aside any action of the commission they feel is inappropriate. The President has the authority to appoint STB members with the approval of the Senate. The President can also remove any of the members for inefficiency or other reasons. Some of the important functions of the STB are regulating rates, reparation, abandonments, consolidations, mergers, and acquisitions for the following modes of transportation: rail, motor, coal slurry pipeline, inland, and coastal waterways.

(1) Rates. Perhaps regulating rates of carriers is the most important function of the STB. Rates must be reasonable and just, must not discriminate, must not give undue preference, and must not result in undue prejudice. The federal Department of Transportation has oversight in this area, as well, based on mode of transportation.

(2) Abandonments. Only the rail carriers must obtain STB approval to abandon service. Before a railroad can abandon service over any route, it must go before the STB and show in detail why this service should be discontinued. If the STB agrees that the service is not necessary, it will issue to the petitioning carrier a Certificate of Abandonment. Railroad abandonments have become increasingly important to DoD installations in the past few years. These abandonments can be the result of a formal application to the STB or because of bankruptcy. Camp Pendleton, CA, Picatinny Arsenal, NJ, and many more DoD installations have been affected by abandonment applications. The DoD Executive Agency for the Railroads for National Defense Program is the Military Traffic Management Command (MTMC). This organization strives to ensure defense considerations in civil plans for the nation's railway network.

(3) Consolidations, Mergers, and Acquisitions. The STB reviews all consolidations and mergers of rail carriers, express companies, motor carriers, and water carriers. A carrier must have the board’s approval before it can take control of another carrier.

b. **Federal Maritime Commission (FMC)**. The Federal Maritime Commission exercises regulatory control over common carriers by water in domestic offshore trade and in foreign trade. Ocean tramps or other water carriers which do not qualify as common carriers are not subject to regulation.

(1) Domestic Offshore Trade. Since domestic offshore trade is subject to the sole jurisdiction of the United States, a more complete regulation of rates is provided than in foreign trade. Under the provisions of the Intercoastal Shipping Act of 1933, rate regulation is similar to that exercised by ICC over common carriers in interstate trade. Domestic offshore common carriers are not required to obtain

Certificates of Convenience and Necessity. Therefore, anyone with an American flagship may start a common carrier service by filing a proper tariff.

(2) Foreign Trade. Because the foreign trade of the United States is also the foreign trade of another country, it is subject to regulation by both country of origin and country of destination. The problem is to avoid conflicting regulations which would be a handicap in conducting trade. Direct rate regulation has been carefully avoided by all governments, our own included. Carriers of almost every nationality engage in our export and import trade. All of these carriers, American flag and foreign flag, are subject to the same regulation under our shipping laws. Ocean freight rates are regulated largely through conferences of which most ocean carriers are members. A conference is a cartel of all vessels operating between certain trade areas; i.e., Gulf/UK Conference. The system brings about stable rates for all carriers, large and small. The conferences do the regulating initially, but in our trade their actions are subject to review and correction by the FMC to the extent necessary to bring them within the purview of the regulatory provisions of our laws. Conferences governing trade to or from the United States are required to file their agreements with the commission and to secure its approval before they may function. The commission has explicit authority to cancel or modify any steamship conference rating found to be unjustly discriminatory among shippers, carriers, or ports or to be operating in direct opposition to the promotion of foreign commerce.

6. Administrative Agencies.

a. **The Department of Transportation (DOT)**. On 15 October 1966, the President of the United States signed into law an act of historic effect upon the American transportation system. It created a new cabinet post--the DOT. The new department gathered together more than 30 transportation agencies or functions that had been scattered throughout the Government. Foremost among its functions are promoting current and future transportation and protecting the public's interest. Some of the functions are **safety for passengers, for shippers of freight, for employees of transportation lines, and for the entire public as well. Some of the agencies incorporated in the DOT are**:

(1) The **United States Coast Guard**. The United States Coast Guard (USCG) is a service within the DOT. In war or when the President directs, the USCG operates as part of the Department of the Navy. The Coast Guard enforces or assists in enforcing Federal laws on the high seas and waters subject to the jurisdiction of the United States. It provides search and rescue services, and develops and administers a merchant marine safety program. It establishes and maintains a comprehensive system of aids to navigation for the Armed Forces and Marine Commerce. The Coast Guard conducts and maintains ocean stations, providing icebreaker service, and trains officers and enlisted reservists.

(2) **Maritime Administration**. This agency administers programs to aid in the development, promotion, and operation of the U.S. Merchant Marine. The Maritime Administration decides which steamship lines, based on cost comparisons with foreign flag vessels, are to be granted subsidies and determines the subsidy rates. It is also responsible for shipbuilding and design, ship operations, and repair; it maintains reserve fleets and conducts maritime training at the U.S. Merchant Marine Academy in Kings Point, NY.

(3) **Federal Aviation Administration (FAA)**. By 1958, aviation had grown far beyond the bounds of the most optimistic forecast. Our aeronautical technical knowledge was far ahead of its application. Our ground facilities were outdated, and airspace, once thought inexhaustible, was rapidly diminishing. As a result, airspace has to be apportioned safely and fairly between its users, civil and military. The Federal airways had to be modernized; and modern methods of control had to be devised and applied

to the ever-growing volume of air traffic. The FAA is concerned with the research and development of air traffic control, navigation for civil and military operations, flight standards, and contributes to the design of future civil aircraft.

(4) **Office of Aviation Analysis**. Before 1985, the Civil Aeronautics Board (CAB) regulated the civil air transport industry within the U.S. and between U.S. and foreign countries. Within this framework, the board granted licenses, approved and disapproved rates, and reviewed agreements and corporate relationships involving air carriers. The Airline Deregulation Act gradually reduced the CAB's regulatory powers until the demise on 1 January 1985 of the CAB. The Act allowed airlines to abandon service, expand routes, and change rates with very little intervention. Most of the functions of the CAB were transferred to the FAA. The Office of Aviation Analysis was created in 1985 under the DOT to ensure that essential air service is maintained to communities with existing service but which might lose service under deregulation. This office may, if necessary, grant subsidies to assist air carriers providing unprofitable service to communities.

(5) **Federal Railroad Administration (FRA)**. The primary functions of the FRA are to promote railroad safety, conduct research in high-speed ground transportation, and assist the many different rail companies in standardization of operations and information sharing techniques. The FRA may provide subsidies for track and equipment rehabilitation for essential rail lines.

(6) **Federal Highway Administration (FHWA)**. The FHA is concerned with the total operation and environment of highway systems, including safety. They administer the Federal-aid highway program, providing financial assistance to states for highway construction and efficiency of traffic operations. This program includes preservation of the 250,000 mile National System of Interstate and Defense Highways. The FHA also exercises regulatory jurisdiction over the safety performance of motor carriers engaged in interstate commerce. They conduct safety inspections of carrier terminals and roadside checks of vehicles and drivers with particular attention to hazardous materiels.

b. **National Transportation Safety Board**. This organization is an independent governmental agency created in 1966; the board has its own statutory responsibilities and executive authority. Its functions, powers, and duties are to determine the cause or probable cause of transportation accidents. All reports are made public.

(1) Aviation safety. One of the major functions of the board is to investigate civil aircraft accidents occurring in the United States and its territories and to determine their probable cause. It publishes its reports, makes safety recommendations intended to prevent similar occurrences, and determines what will best tend to reduce or eliminate the possibility of aircraft accidents.

(2) Surface safety. In addition to the aircraft accident investigation, they also investigate accidents occurring to rail, highway, marine, and pipeline carriers. Prevention of accidents is one of the prime objectives of the board.

7. DoD Transportation.

a. The Secretary of Defense. The Secretary of Defense has two primary sources of advice on matters affecting transportation: The Assistant Secretary, Production and Logistics (ASD P&L), advises him on general logistics policy, and the Joint Chiefs of Staff (JCS) advise him on matters affecting multiple support operations. DoD relies almost exclusively on the commercial transportation industry to meet defense transportation requirements within CONUS. **The DoD transportation policy states, "commercial transportation will be employed by the military departments for the movement of persons and things between points within the United States when such service is available or readily obtainable and satisfactorily capable of meeting**

requirements. Consequently, the availability of a diverse, efficient transportation industry is fundamental to national security. DoD annually consumes transportation services which exceed $8 billion.

b. Transportation Management Agencies.

(1) ASD P&L. The ASD P&L is a staff assistant to the Secretary of Defense in several functional fields, among which transportation is one. To assist him in this function, he has a staff assistant in the Directorate for Energy and Transportation Policy, which is organized under the Deputy Assistant Secretary Logistics and Materiel Management.

(2) Directorate for Energy and Transportation Policy. This Directorate is responsible for development of DoD transportation policy with its primary objective being preparedness and efficiency. To maintain and enhance transportation preparedness, this office sets specific objectives directed at increasing the readiness of DoD transportation activities, organic strategic mobility assets, and improving the ability of our industrial base to respond to defense requirements in crises and war. These objectives include peacetime policies for the Military Sealift Command (MSC) and the Air Mobility Command (AMC). Efficiency equates to obtaining a maximum return on each dollar spent while achieving the proper balance between costs and responsiveness. To achieve efficiency, the directorate provides broad guidelines which the services, Defense Logistics Agency (DLA), and the transportation operating agencies, AMC, MSC, and the Military Traffic Management Command (MTMC), use in the procurement and management of transportation services.

(3) Director of Logistics (J-4). This JCS agency concerns itself with the capability of deploying and sustaining military forces worldwide. Within J4, the Director of Logistics uses subordinate staff elements to evaluate current movement capability and analyze future requirements for strategic mobility. He provides the transportation input for a series of JCS plans. The Joint Transportation Board (JTB), a separate organizational entity within J4, recommends priorities when service requirements for transportation exceed available resources. The J4 has staff responsibility for strategic mobility, joint logistics, and mobilization matters.

(4) **United States Transportation Command (USTRANSCOM)**. The USTRANSCOM was organized in April 1987 as a unified command with the mission of providing air, land, and sea transportation for the DOD in peacetime and wartime. This command consists of the Air Force Air Mobility Command, the Navy Military Sealift Command, and the Army Military Traffic Management Command. Initially, the mission of the USTRANSCOM pertained to wartime operations only. However, in February 1992, the Secretary of Defense directed that its mission would apply both in times of peace and war. This redesignation was based on a reduction of DoD resources as well as the successes attributed to the USTRANSCOM during the Gulf War.

c. Air Force Transportation Services. **Air Mobility Command (AMC).** AMC was originally established as the Military Air Transport Service (MATS) in 1948 by combining elements of the Naval Air Transport Service and the Air Transport Command of the Air Force. In December 1956, the Secretary of the Air Force was designated the single manager for airlift service and MATS was designated the transportation operating agency for all components of DoD and, as authorized, for other agencies of the U.S. Government, between points in the United States and overseas, and within overseas areas. MATS was renamed Military Airlift Command (MAC) in 1966. On 1 June 1992, MAC took on the additional responsibility of setting doctrine for Air Force tanker aircraft and was further renamed AMC. AMC is charged with maintaining, in a constant state of readiness, the military airlift system necessary to perform all airlift tasks, under emergency conditions, as assigned by the JCS. Peacetime training ensures the ability to carry out the wartime deployment

mission. A valuable byproduct of this training is the airlift capability is used to support daily operations of U.S. forces throughout the world. Airlift requirements, established by various Government agencies, are fulfilled by AMC in accordance with JCS-directed priorities. The major components of airlift force are such airframes as the C-5 Galaxy, KC-10 Extender, KC-135 Stratotanker, C-130 Hercules, C-141 Starlifter, and the new C-17 Globemaster III. The two primary units in AMC are the 15th Air Force located at Travis AFB, CA, and the 21st Air Force at McGuire AFB, NJ.

d. Navy Transportation Services. **Military Sealift Command (MSC)**.

(1) The single manager for ocean transportation, as assigned by DoD, is the MSC. The Secretary of the Navy has been given the responsibility for this phase of the military transportation system. The MSC is a major operating force of the Navy. It is organized as a worldwide command with headquarters in Washington, DC., and area commands, subarea commands, and offices strategically located around the globe. As the transportation operating agency for ocean transportation, the MSC performs numerous missions. The MSC's primary mission is to provide direct logistics support for deployed U.S Navy combat units. The MSC further provides an immediate sealift capability in emergencies, plans for expansion in emergencies, provides peacetime ocean transportation for DoD and other authorized agencies, and provides ships for oceanographic exploration, range instrumentation, and missile tracking. During wartime, the MSC provides 90 percent of the sustainment transportation required by U.S. military forces.

(2) In performing these missions, the MSC coordinates closely with the shipper services (Army, Navy, Marine Corps, and Air Force), and with the other transportation operating agencies (AMC and MTMC). The relationship with MTMC is especially close in the CONUS area commands because military cargo flows to MSC through the movement control channels of MTMC. In time of peace, MSC maintains contact with the Maritime Administration to obtain information, to develop new ship designs, and to assist in formulation of major policies which involve the interests of DoD. In times of military emergency, where ships of the National Defense Reserve Fleet are in operation, the relationship between MSC and the Maritime Administration is very close.

e. Army Transportation Services. **Military Traffic Management Command (MTMC).** MTMC is an Army major command and is the operating agency through which the SA executes his responsibility as DoD single manager for military traffic, land transportation, and common-user ocean terminals. MTMC is the only one of the three single managers for transportation which is jointly staffed. Its mission is to provide responsive, flexible support in peace and war to the operating forces of the U.S. Army, Navy, Air Force, and Marine Corps. MTMC provides the HOW of movement management when the military shipper decides WHEN, WHERE, and WHAT is to be moved. This command is the interface between all defense shippers and both commercial and defense carriers. As a transportation operator, MTMC provides ocean terminal services to DoD. As a transportation manager, MTMC manages freight and passenger transportation in the United States, and manages the worldwide personal property (household goods) moving and storage program. As a transportation adviser, evaluates defense transportation activities and recommends system improvement to the Secretary of Defense and to the military services.

f. Marine Corps and Defense Logistics Agency (DLA) Transportation System. The Marine Corps and DLA do not operate any transportation facilities of their own, but use available military and commercial capabilities.

8. Modes of Transportation. The United States possesses a transportation system that is without parallel in the world today. Rail, motor, air, water, and pipeline carrier systems, the five modes of transportation, offer an unprecedented variety of equipment and services to the shipper.

Technological advances in motive power, cargo containers, and interchangeable equipment promise an even more flexible and efficient system.

a. **Air, motor, rail, water, and pipeline modes** of transportation of which each have inherent advantages and disadvantages. Normally, you can associate speed with cost. The faster the mode, the more expense incurred. Air provides fast moves for small quantities of materiel at a fairly high cost. Approximately 1 percent of DoD freight moves by air; yet, 20 percent of every transportation dollar is spent on air movement. Rail moves the predominance of the weight moved; yet, only receives about 20 percent of the revenue. Motor freight moves only about one-third of the total weight as rail, yet receives 40 percent of the revenue. Motor freight is a very popular service in that it does provide door-to-door delivery.

b. Besides the primary modes, there are other services that move people and things. These services may combine several modes and include such carrier services as:

(1) Trailer-on-flatcar (TOFC). There have been numerous efforts over the years to expedite the movement of goods through elimination, where possible, of repeated handling and transfer of goods from mode to mode. TOFC really began in the 1930s when less-than-carload (LCL) freight was loaded onto the carriers' own motor trailers, placed on flatcars, and transported between two cities. This intermodal form of transportation exists today with minor modifications because it is fuel efficient and it provides railroads with the capability of door-to-door service to customers. At the railcar destination, trailers are towed from the railcars and distributed to a customer's warehouse.

(2) Container on flatcar. This service is basically the same type as TOFC, except the containers are removed from their chassis, transported to the destination by rail, and loaded again on chassis for delivery.

(3) Roll-on/Roll-off. A similar service in which trailers are rolled or driven on ships, carried to destination water ports, and rolled off.

(4) Freight Forwarders. Freight forwarders are of three types--surface, ocean, and air freight forwarders. Freight forwarders are classified as common carriers because they offer to the public transportation of cargo for compensation. They assemble and consolidate LCL and less-than-truckload (LTL) shipments into carload (CL) or truckload (TL). The freight forwarder assumes a responsibility for the transportation of property from the point of receipt to point of destination. Surface and ocean freight forwarders own no rolling stock of their own, but use other common carriers' equipment. As a middleman, they consolidate small shipments into TL, which is usually a cheaper rate.

(5) Parcel Post. Parcel post service is available for the movement of small packaged articles not to exceed certain prescribed weights and sizes by the United States Postal Service. The limitations imposed by the Post Office Department for size and weight limits are 100 inches in length and girth combined, and not to exceed 70 pounds. There are some exceptions to this: for instance, the size and weight sent from first class post offices to first class post offices, and between second class post offices, etc.

(6) Bus Package Service. Most of the buslines operating interstate service carry substantial amounts of package express and pouch mail. Package express service is usually offered between points on carriers' regular routes. Some carriers also provide a joint service via connecting buslines and, in some instances, via airlines. The size of each package is usually limited to 72 inches in length and 141 inches in length and girth combined. Weight limitations vary; however, most carriers accept packages weighing up to 100 pounds. In the past, shipments were delivered and picked up at carriers' terminals. The larger bus companies now offer local pickup and delivery service.

(7) Small Package Carriers (air express and package express service). Small package carriers provide an expeditious method of moving small shipments at a cost competitive with parcel post. Each carrier publishes their delivery areas, rates, and amount of time required for delivery. The rate structure may include pickup and delivery service on a daily or frequent basis. Several companies participate in transportation contract programs. To illustrate, FedEx has a contract for CONUS air shipments. Also, companies such as UPS, DHL, and FedEx have World Wide Express (WWX) contracts to ship small packages to international destinations throughout the world. WWX contracts are awarded by USTRANSCOM. All transportation contracts are in accordance with prevailing Federal Acquisition Regulations (FARs).

c. Considerations for selection of a mode or carrier. By regulation, transportation officers are bound to consider, in sequence, the following factors before making a final selection of any mode or carrier to move DoD materiel.

(1) Satisfactory service. Both the mode and the carrier must be capable of moving materiel in the right configuration to meet **required delivery dates (RDD)** without loss or damages.

(2) Economical Service. Of course, DoD is concerned with selecting the least expensive carrier, but only after ensuring that satisfactory service will be provided to both the shipper and the receiver.

(3) Fuel consumption. The method of transportation that consumes the least amount of fuel, consistent with mission requirements, will be considered after service and cost.

(4) Equitable distribution. Shipments of materiel will be distributed equally among all qualified commercial carriers which meet the criteria of providing satisfactory service at the lowest overall cost.

9. Deregulation.

a. On the deregulation front, Congress passed two key measures designed to increase competition in the trucking and railroad industries. The Motor Carrier Act signed in July 1980 was intended to encourage new companies to enter the field, to curb regulations restricting service, and give companies more freedom to raise or lower their rates without the approval of the Interstate Commerce Commission (ICC). The railroad deregulation bill, The Staggers Act of 1980, similarly gave the Nation's railroads more authority to set their own rates, which have been regulated tightly by ICC.

b. Motor Carrier Act of 1980. A few of the major changes are:

(1) Easier entry into the market.

(2) Elimination of rules that require intermediate stops and circuitous routes.

(3) Removing restrictions on categories of commodities that may be hauled and eliminate stops that waste fuel.

(4) Exempts from ICC control goods that are diverted from aircraft to trucks because of adverse weather.

(5) Removal of some restrictions on financial and contractual arrangements between trucking companies and their subsidiaries.

(6) Establishes zones in which a carrier may raise or lower by 10 percent rates that were in effect 1 July 1980.

(7) End collective ratemaking and antitrust immunity for single line rates.

(8) Require $5 million insurance for vehicles carrying hazardous cargo and $750,000 for other goods.

(9) Directs the labor department to help out-of-work trucking employees.

c. The Staggers Rail Act of 1980. This is the most significant rail bill since 1887. The bill in brief does the following:

(1) Gives railroads greater freedom to set freight hauling rates.

(2) Gives railroads greater authority to enter into long term agreements/contracts with their freight shipper customers.

(3) Makes it easier for railroads to eliminate nonprofitable routes.

(4) Makes mergers with transportation companies easier.

(5) Establishes inflation-based rate increases.

(6) Automatic approval of contracts between carrier and shipper if not challenged within 120 days of filing.

d. Deregulation Impact on DoD. The initial impacts of deregulation from the DoD traffic managers' perspective were mixed--significant benefits and some challenges. The MTMC fully supported deregulation as a vehicle for generating and enhancing competition. The benefits include an increase in the number of carriers competing for DoD traffic, substantial transportation cost avoidances, and the enhancement of intermodalism. Deregulation resulted in some problems including an increase in the number of abandonment applications involving low density rail lines essential to the national defense, deterioration in the quality of service provided by some carriers, and a significant increase in administrative workload at MTMC.

10. Distribution Center Transportation Functions.

a. The distribution center, or installation, transportation officer (ITO) is the commander's advisor on transportation matters and is the connecting link between the distribution center activities that require transportation in their day-to-day operations and the commercial carriers of the several modes that provide the transportation. The transportation division provides a wide range of customer services which include the movement of supplies and equipment, household goods, and passengers; diversions, reconsignments, tracing, and providing status for shipments awaiting movement and for shipments en route. They report and investigate overages, shortages, damages, and lost shipments. Many distribution centers also operate an internal rail section that handles the placement and movement of rail cars within the installation. The ITO has a wide range of management responsibilities which require different considerations pertaining to inbound or outbound shipments.

(1) Carrier Liaison. The transportation officer is the liaison between the installation and commercial carriers. Carrier representatives usually schedule appointments with the transportation officer to discuss service. During these appointments, the carrier provides information concerning the companies' equipment, routes, and special services. The transportation officer, in turn, provides the carrier with information about local procedures for pickup and delivery, hours of operation, and performance expectations. Long-term transportation services for passengers or tonnage is guaranteed to transportation companies through Federal Acquisition Regulation (FAR) contracts negotiated by the Military Traffic Management Command (MTMC). Through freight and personal property workshops, carrier visitations to the installation, and MILSTEP/LMARS performance reports, the transportation division evaluates carrier performance to meet mission requirements.

(2) Detention and Demurrage. Detention and demurrage are charges penalizing shippers for the detainment of equipment. Detention charges are levied by the motor carrier industry and demurrage is charged by railroads. A car/truck record can be a means of controlling conveyance detainment. When a conveyance is about to enter detention or demurrage status, the traffic manager evaluates whether it is more

cost-effective to work overtime or pay detainment charges. Some installations have implemented a vehicle scheduling system whereby carriers picking up or delivering at the installation make an appointment before arriving.

(3) Carrier Performance Program. The carrier performance program, developed by MTMC, emphasizes the correction of unsatisfactory carrier service. When individual carriers fail to provide satisfactory service, the transportation officer is authorized to disqualify carriers from DoD traffic. Reasons could include failure to pick up shipments at the agreed-upon date and time, or for not providing adequate or proper equipment. Also, MTMC may disqualify carriers for unsatisfactory transit times, violation of Department of Transportation (DOT) hazardous materials regulations, excessive loss and damage, or excessive overcharges and claims. Carriers do have the option to appeal to HQ, MTMC, or MTMC area commands. Meeting mission requirements is the primary concern of military shippers; therefore, it is advantageous to have service failures corrected as soon as possible. Transportation officers must maintain accurate records of service failures to disqualify unsatisfactory carriers.

INSTALLATION/DISTRIBUTION CENTER TRANSPORTATION OFFICER RESPONSIBILITIES
Liaison with local carriers Routing/Rating Expediting/Tracing Diverting/Reconsigning Discrepancy Control Detention/Demurrage Carrier Evaluations

b. Actions for Inbound Shipments.

(1) Conveyance control. The transportation office is responsible for controlling the carrier's movements during the entire time the conveyance is on the installation. Normally, scheduled arrival times will be coordinated to prevent delivery vehicles disrupting traffic if they all arrive at the same time. A receipt control system is used to identify the carrier's arrival time and location on the distribution center. If the conveyance must be placed in a temporary holding area, the distribution center may provide a truck or locomotive to shuttle the conveyance around the distribution center. The transportation office inbound section should be located near the receiving area so they can readily match delivery documents with the conveyance.

(2) Inspection. The receiving installation makes a careful examination and count of containers in each shipment received from commercial carriers to determine whether overages, shortages, or damages exist. Such inspections include checking seals and looking for indications of pilferage, faulty packing, and improper loading techniques. The receiving installation should check each item as it is unloaded from the conveyance to prevent any potential disagreements with the commercial carrier. Discrepancies will be recorded on the commercial or Government Bill of Lading (GBL) before the carrier's representative departs.

(3) Reporting discrepancies. The transportation office is responsible for resolving transportation discrepancies on incoming shipments. The Transportation Discrepancy Report (TDR), SF 361, is used to identify, report, and resolve overages, shortages, or damages. Specific procedures for completing and distributing the TDR can be found in the Defense Traffic Management Regulation.

INBOUND ACTIONS
*Conveyance Control *Inspection *Transportation Discrepancy Reports

c. Actions for Outbound Shipments.

(1) Shipment Planning. As Materiel Release Orders (MROs) are received from the Inventory Control Point, they are verified, sorted, and consolidated into shipment units based on priority, weight, cube, and consignee by the computer. During this initial consolidation of MROs, the computer provides the Transportation Division a Consolidation Report. This report lists a series of individual MROs to be packed together as one shipment unit. When the materials are packed according to the report, items are no longer identified individually, but become shipment units such as boxes, crates, pallets, and truckloads. Consolidation of materiel into shipment units reduces transportation costs and allows maximum use of carrier's equipment. The Transportation Division attempts to arrange transportation services to coincide with the arrival of the shipment unit in the outloading area.

(a) Mode Selection. The transportation division determines whether the shipment will be routed by the MTMC or the Installation Transportation Officer (ITO) (see Exhibit 1). The determination is based on the weight, cube, and hazardous class. MTMC selects the mode and carrier for release unit shipments. Release units are defined in the DTR. The transportation division prepares a routing request indicating the type of equipment required, number of conveyances, the destination, weight, cube, dimensions of materiel, and forwards it to the appropriate MTMC area command. For less-than-release-unit (LRU) shipments, the ITO has authority to select the mode and carrier. This selection process is based upon transportation priority, required delivery date (RDD), cost of transportation, past performance of the carrier, size, and nature of the materiel.

(b) Equipment Selection. Shipment planning also includes equipment selection. Selection of the proper equipment is important because a cost savings in loading/offloading, blocking, and bracing may be realized. Occasionally, a consignee will not have facilities or the proper materiel handling equipment to unload outsized or heavy materiel. Depending on the dimensions, weight, and cube of the shipment unit, how it could be nested or loaded, the transportation division determines which equipment will best suit the needs of the customer and remain cost effective. Flatbeds, lowboys, high cube vans, and bilevel/trilevel railcars are just a few examples of equipment which can be procured.

(2) Transportation Actions Between Date Available and Date Shipped (Outbound).

(a) General. Transportation processing time begins when the shipment is made available to transportation by the packing activity and ends on the actual date shipped. During this time, shipment data has to be verified, classified, and rated, transportation billing prepared, and materiel outloaded. The Transportation Control and Movement Documentation (TCMD) is also prepared and transceived to air and water ports for use in designing stowage plans for oversea movement. Export documentation such as customs forms and hazardous materiel placarding are the responsibility of the transportation division.

(b) Small Packages. The United States Postal Service (USPS) and many commercial carriers provide specialized service for the movement of small packages. Service varies for each carrier; therefore, the transportation division must determine which carrier can provide the best service based on pickup and delivery points, size and weight limitations, priority, cost, and the type of commodity being shipped. Some small package carriers prefer billing on their own commercial documents. Rates are determined by weight, distance shipped, and volume of shipments. Also, MTMC negotiates long-term contracts with transportation companies (i.e., FedEx Ground) to provide surface transportation for CONUS destinations.

(c) Freight Shipments. To reduce costs, handling and transit time, shipment units are consolidated into truckload or carload shipments. A transportation control number (TCN) is assigned to each shipment unit. The

TCN is constructed using the document number with the earliest RDD. Through the use of the TCN on all transportation documentation, the shipment unit can be controlled and traced from origin to destination. The transportation division reviews documentation and determines the mode, carrier, and cost. An electronic system known as Power Track is used for transportation billing and payment. All shipment information, including notification of delivery, is submitted electronically and stored in one central electronic Bill of Lading. Each Bill of Lading is approved by the distribution center responsible for the freight payment. Carriers receive payment as quickly as 24 hours after delivery. The Power Track payment subsystem pays the freight bill when approval and notification of delivery are received.

(d) Outloading. The shipping floor of the distribution center outloading area should be laid out compatible with freight routing patterns and projected shipping schedules to ensure a minimum of handling. There must be extremely close coordination between loading personnel and the outbound section personnel preparing the GBL. Through a series of MILSTEP reports, the in-transit data provide the transportation division feedback on carrier performance. After the conveyance is loaded and seals are attached, the carrier agent signs all bills of lading, and the shipment departs the distribution center.

(1) Loading, Blocking, and Bracing. Loading, blocking, and bracing of carload and truckload shipments are a responsibility of the shipper, except when the carrier's tariffs specifically provide for loading and unloading by the carrier as a terminal service. Less-than-carload (LCL), less-than-truckload (LTL), and commercial air shipments can be the carrier's responsibility; however, normally the defense distribution center provides this service. This information, if applicable, will be included in the routing instructions issued by MTMC area offices. It is important that all copies of the bill of lading bear the notation "shipper to load and consignee to unload the shipment." It is also important that the original bill be annotated by shipper and consignee as to whether loading and/or unloading was actually performed by the Government.

(2) Loading Rules. The proper packing, loading, and securing of freight shipments in the carrier's equipment are required for safety and to prevent loss or damage to the shipment. Specific rules are published by the carriers themselves and their representative organizations, and by regulatory agencies, such as the Bureau of Explosives, Department of Transportation, Association of American Railroads, U.S. Coast Guard, and State regulatory bodies. A list of pertinent pamphlets and loading regulations are contained in the DTR; technical information relative to materials handling operations can be obtained from DoD 4145.19-R-1.

OUTBOUND ACTIONS

*Shipment Planning
*Mode/Equipment Selection
*Documentation
*Small Package/Freight Shipments
*Outloading

11. Special Transportation Movements.

a. Introduction. Detailed instructions about safeguarding defense information relating to the movement of persons and things are contained in the DTR. These regulations apply to the movement of individuals, groups, supplies, and materiel by any mode of transportation within the responsibility of the DLA. Individuals who possess classified information concerning movements are responsible for safeguarding it in accordance with the regulations. No information except that which is essential for the movement of the shipment is furnished to the carrier. Transportation officers must make certain adequate security guards are provided when required and that security and classified shipments are handled expeditiously until released to the carrier or delivered to consignee.

b. Security Guards, Escorts, and Guard Cars. Security guards should be provided, when

required. When guard cars are required, they are requested from the Commander, MTMC. In addition, some transportation companies offer satellite shipment tracking. Transportation is provided in accordance with the DTR

c. Hazardous Materiels. The term "Hazardous Materiel" means a substance in a quantity and form which may pose an unreasonable risk to health, safety, or property when transported in commerce. Hazardous material includes such items as explosives, poisons, and radioactive material. Each transportation mode has special rules which govern their operation while transporting hazardous materiels. These could include checking condition of cars and trailers, getting special clearances from the Federal Aviation Administration (FAA) for air shipments, notification to the recipient of the arrival date and time, and followup procedures for late arrivals. Much of the needed information of the movement of hazardous and dangerous articles can be found in the DTR and the Code of Federal Regulation Title 49, parts 100 to 199. Every person who transports or causes shipments of hazardous material in commerce must be trained and registered with the Secretary of Transportation every 2 years. It is of vital importance that distribution center personnel involved with the shipment of hazardous material be properly trained and certified in the handling of hazardous cargo.

d. Exclusive Use of Vehicles. Occasionally, in order to expedite a shipment, exclusive use of carrier's equipment may be required. Most motor carriers offer exclusive use of vehicle service. When this service is used, the company contracts the entire trailer space to the shipper. This results in expedited delivery service. Exclusive use of vehicle is normally used in emergency or work stoppage situations and is an expensive service.

e. Emergencies. In emergencies which preclude requesting routing instructions, routing by way of any mode may be made without prior approval from MTMC. In such instances, transportation officers must annotate the GBL to explain what type of emergency has occurred.

12. Management of Transportation Operations.

a. General. Transportation management includes all of the functions previously discussed. This section is dedicated to those management tools and concepts which can assist the transportation officer in managing resources and workload effectively.

b. Order and Shipping Times. Transportation offices, particularly at distribution centers, must be constantly alert to time constraints when making shipments. This is especially important for shipments destined to military ocean terminals for overseas surface movement. Order and shipping times are established for Military Standard Requisitioning and Issue Procedures (MILSTRIP) requisitions based on the priority designator and required delivery date. Usually the most economical mode, consistent with the urgency of need for the shipment at destination, is used.

MILSTEP/LMARS reporting for the transportation segment is divided into 2 parts, transportation hold time and carrier intransit. Transportation hold is the time used by the transportation division to prepare GBLs, contact carriers, etc. Carrier intransit starts on the ship date and ends when the shipment arrives at the destination.

c. Reports. The following automated reports are available from the distribution center computer for management of distribution center transportation operations.

(1) Freight Traffic Report. This output listing is used by the transportation officer to analyze trends in performance. Areas of interest are: cost per ton mile by mode of shipment; average number of lines per shipment unit; and percent of mechanical GBLs.

(2) Carrier Tonnage Distribution. Identifies tonnage to each carrier routed by the

distribution center transportation organization. This is to ensure equal distribution of tonnage in accordance with the DTR.

(3) Freight Planning Summary Report. Used in load planning by the shipper. It indicates, by consignee, shipments being processed and those on the banking file with MDT which could be consolidated.

13. Summary. In this unit of instruction, we discussed various functions of transportation as it relates to the logistics manager. The main theme has been for you to understand which agencies make transportation an effective element of the physical distribution system and to understand the critical functions of a transportation office. We discussed the importance of shipment planning and the critical impact that commercial transportation has on meeting the required delivery date of customers in the field. An important point to remember is that there is a trade-off associated with mode selection--cost versus performance. The transportation manager must always be aware of this trade-off when making a decision.

Exhibit 1

DOMESTIC FREIGHT ROUTING RESPONSIBILITIES--MTMC AND ITOs

SHIPMENT CATEGORY*	AREA COMMAND	ITO
1. General Commodities--10,000 pounds or more.	X	
2. General Commodities--Less than 10,000 pounds.		X
3. Military Impedimenta--10,000 pounds or more.	X	
4. Military Impedimenta--Less than 10,000 pounds.		X
5. Packed and Crated Household Goods and Baggage--Any quantity.		X
6. Class A and B Explosives via Air Taxi--Any weight.	X	
7. General Freight via Air Taxi--Less than 201 pounds.		X
8. General Freight via Air Taxi--201 pounds or more.	X	
9. Explosives, Poisons, and Other Dangerous Articles, Class A and B--All shipments via rail, motor carrier, or freight forwarder.	X	
10. General Freight via Commercial Air, and Freight Forwarder—2,500 pounds or more.	X	
11. General Freight via Commercial Air, and Air Freight Forwarder--Less than 2,500 pounds.		X

*Assumes distribution center transportation office is <u>not</u> operating under guaranteed traffic rules.

OUTLINE FOR NOTETAKING

TRANSPORTATION MANAGEMENT

I. Regulation of Transportation.

A. National Transportation Policy.

B. Interstate Commerce Commission.

C. Surface Transportation Board.

D. Federal Maritime Commission.

II. Administrative Agencies.

A. Department of Transportation.

1. U.S. Coast Guard.

2. Maritime Administration.

3. Federal Aviation Administration.

4. Office of Aviation Analysis.

5. Federal Railroad Administration.

6. Federal Highway Administration.

B. National Transportation Safety Board.

III. DoD Transportation.

A. DoD Transportation Policy.

OUTLINE FOR NOTETAKING (Continued)

TRANSPORTATION MANAGEMENT

B. Transportation Agencies.

1. DoD level.

2. U.S. Transportation Command (USTRANSCOM).

a. Air Mobility Command (AMC).

b. Military Sealift Command (MSC).

c. Military Traffic Management Command (MTMC).

IV. Modes of Transportation.

A. Types and Advantages/Disadvantages.

B. Mode Selection Criteria.

V. Deregulation.

A. Motor Carrier Act.

B. Staggers Rail Act.

VI. Distribution Center Transportation Functions.

A. Responsibilities.

B. Inbound Shipments.

C. Outbound Shipments.

OUTLINE FOR NOTETAKING (Continued)

TRANSPORTATION MANAGEMENT

D. Material Preparation and Documentation.

E. Special Movements.

VII. Management of Transportation Operations.

A. Order Ship Time.

B. Reports.

C. Detention/Demurrage.

D. Carrier Liaison.

E. Carrier Evaluation.

STUDY QUESTIONS

1. What are the five modes of transportation? List two advantages and two disadvantages of each.

2. List the four factors, in sequence, which must be considered during mode or carrier selection.

3. What is a release unit shipment? Who is responsible for mode selection?

4. What type of carriers/modes do the Surface Transportation Board and the Federal Maritime Commission regulate?

5. You have a 3,500 pound shipment destined for Korea. What DoD organization would you contact to send this shipment by air?

6. What is exclusive use of conveyance, and when might it be used?

7. Transportation performance is divided into two segments. What are they and when does each start and end?

8. List 5 responsibilities of the Distribution Center/Installation Transportation Officer.

9. How does the Department of Transportation interface with the DoD?

10. What tools are used by the distribution center transportation division for shipment planning? What is the purpose of shipment planning?

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